Amendments to the Specification

Please replace the third full paragraph beginning at page 17, line 20 with the following amended paragraph:

Additionally, the calibration program employs another equation to correct for pitch angle of the laser beams as they vary during a full 360° scan. This equation makes a minor correction to the observed target height; this height correction gets larger as targets further from the scanner are scanned, because the beams are pitched up/down owing to, e.g., a tilted mirror. The pitch angle calibration used is:

$$\text{Pitch angle} = AP + BP \times \sin(a + DP)$$

where AP is the average pitch angle (laser beams drawing cones), DP is the phase, BP is the magnitude of a tilted plane and a is the rotational angle to the target. Accordingly, the true height of each target is expressed by the equation:

$$\text{True height} = H + \underline{R^*} \sin(\text{Pitch angle})$$

where H is the observed height for the target and R is the range (distance from hub) to the target. The coefficients generated by this calculation are also stored in memory.